

**ABSTRACT**

I.V. catheter assembly was a catheter with a distal needle for insertion into a blood vessel a portion of the catheter. An adapter with a self-sealing or self-closing plug is connected to the catheter, proximally of the distal needle. A proximal needle that can couple to the distal needle is in a guard tube on the other side of the plug. In use the proximal needle is pushed through the plug and into coupling engagement with the distal needle so the distal needle can be inserted into a blood vessel. The coupled needles are then withdrawn and shielded in the guard tube. The guard tube is then disconnected from the adapter and the adapter can be used to discharge blood from, or supply fluid to the blood vessel.